CMR Preconstruction Phase Supplemental Scope of Services

1.0 General:

For this Project, the Construction Manager at Risk (CMR) shall perform the Preconstruction Phase Services described in this Supplement, which by this reference are incorporated herein and made part of the CMR Agreement. Performance of the services is included in the Preconstruction Services Fee payable by State to the CMR.

NOTE: Where discrepancies or conflicts occur in these CMR Preconstruction Phase Supplemental Scope of Services and the CMR Request for Proposals (RFP) Volume 1 of 1 for a specific project, then the CMR Request for Proposals (RFP) Volume 1 of 1 (including all Amendments and Addenda) for a specific project shall take precedence over these CMR Preconstruction Phase Supplemental Scope of Services. The specific Preconstruction Phase Services for this Project are designated in **Table 2.0 - Preconstruction Phase Supplemental Scope of Services Milestones** below:

2.0 Preconstruction Phase Services:

The CMR shall perform all of the designated Preconstruction Phase Services at each Design Phase Milestone. The DCS Project Manager (PM) and Construction Administrator shall review the CMR's submittals and approve each Project Element to be implemented on the project. The following **Table 2.0 - Preconstruction Phase Supplemental Scope of Services Milestones** contains the Percent Completion for each CMR Preconstruction Phase service:

Table 2.0
Preconstruction Phase Supplemental Scope of Services Milestones

Percent Completion For This Project *(Indicated by Checked Box)*		PHASE
☐	100%	Predesign Phase Services
☐	50%	Schematic Design Phase Services
☐	100%	Schematic Design Phase Services
☐	50%	Design Development Phase Services
☐	100%	Design Development Phase Services
☐	50%	Construction Documents Phase Services
☐	90%	Construction Documents Phase Services
☐	100%	Final Bid Documents Conversion Into Subcontractor Bid Packages Services
☐	100%	Bid Phase Services

2.1 Constructability Reviews:

All of the following Constructability Reviews shall be conducted at the designated Preconstruction Phase Milestones of **Table 2.0.** The basis for the Constructability Reviews shall be ASTM Uniformat II, classification system for building elements and related sitework (**www.uniformat.com**).

2.1.1 Predesign Phase:

As required by **Table 2.0,** the Construction Manager shall work with the Architect/Engineer (A/E) during this phase and submit a **written analysis/report** to the DCS PM on the impact of the "Cost of the Work" budget's "Major Project Elements" and on the overall Project Schedule, including construction duration, for three (3) conceptual design alternatives. In conjunction with the A/E, the CMR shall formally present their findings and recommendations to the DCS PM and Agency Representative. The written analysis/report shall be submitted to the DCS PM and shall utilize the "Major Project Elements" and include, but not be limited to, the following:

2.1.1 Predesign Phase: (continued)

Major Project Elements				
A	New Building Construction		**E**	Construction Phasing and Duration
B	Renovate Existing Building		**F**	
C	Site work		**G**	
D	Demolition		**H**	

2.1.2 Schematic Design Phase:

As required by **Table 2.0**, the CMR shall review the A/E's **Schematic Design Phase Submittal(s)** and shall submit a **written analysis/report** to the DCS PM on the impact of the "Cost of the Work" budget's "Major Group Elements" and on the overall Project Schedule and recommend appropriate alternatives for consideration. The written analysis/report shall be submitted to the DCS PM and shall utilize the "Major Group Elements" – Level I of ASTM Uniformat II, and include, but not be limited to, the following:

Major Group Elements – Level I (ASTM Uniformat II)				
A	Substructure;		**E**	Equipment & Furnishings;
B	Shell;		**F**	Special Construction & Demolition;
C	Interiors;		**G**	Building Sitework.
D	Services;			

2.1.3 Design Development Phase:

As required by **Table 2.0**, the CMR shall review the A/E's **Design Development Phase Submittal(s)** and shall submit a **written analysis/report** to the DCS PM on the impact of all the "Cost of the Work" budget's "Group Elements" and on the overall Project Schedule and recommend appropriate alternatives for consideration. The written analysis/report shall be submitted to the DCS PM and shall utilize the "Group Elements" – Level II of ASTM Uniformat II, shall include, but not be limited to, the following:

Group Elements – Level II (ASTM Uniformat II)				
A10	Foundations		**D40**	Fire Protection
A20	Basement Construction		**D50**	Electrical
B10	Superstructure		**E10**	Equipment
B20	Exterior Enclosure		**E20**	Plumbing
B30	Roofing		**F10**	Special Construction
C10	Interior Construction		**F20**	Selective Demolition
C20	Stairs		**G10**	Site Preparation
C30	Interior Finishes		**G20**	Site improvement
D10	Conveying		**G30**	Site Mechanical Utilities
D20	Plumbing		**G40**	Site Electrical Utilities
D30	HVAC		**G90**	Other Site Construction

.1 DCS Permits Checklist Review:
The CMR shall also review the A/E's completed "3030 Checklist for Permits Certifications And Approvals". (Go to the online DCS Library (3000 Series) at **www.ct.gov/dcs** for a blank copy of the Checklist.) Issue a written report on any special issues of concern to the DCS PM.

2.1.4 Construction Documents Phase:
As required by **Table 2.0**, the CMR shall review the A/E's **Construction Document Phase Submittal(s)** and submit a **detailed written analysis/report and plans** to the DCS PM on the impact on of all the various "Cost of the Work" budget's "Individual Elements" and on the overall Project Schedule and recommend appropriate alternatives for consideration.

.1 Individual Elements – Level III Report: The written analysis/report shall be submitted to the DCS PM and shall utilize the "Individual Elements" – Level III of ASTM Uniformat II, which shall include, but not be limited to, the following:

Individual Elements – Level III (ASTM Uniformat II)			
A1010	Foundations	**D5010**	Electrical Service & Distribution
A1020	Basement Construction	**D5020**	Lighting and Branch Wiring
A1030	Slab on Grade	**D5030**	Communications & Security
A2010	Basement Excavation	**D5090**	Other Electrical Systems
A2020	Basement Walls	**E1010**	Commercial Equipment
B1010	Floor Construction	**E1020**	Institutional Equipment
B1020	Roof Construction	**E1030**	Vehicular Equipment
B2010	Exterior Walls	**E1090**	Other Equipment
B2020	Exterior Windows	**E2010**	Fixed Furnishings
B2030	Exterior Doors	**E2020**	Movable Furnishings
B3010	Roof Covering	**F1010**	Special Structures
B3020	Roof Openings	**F1020**	Integrated Construction
C1010	Partitions	**F1030**	Special Construction Systems
C1020	Interior Doors	**F1040**	Special Facilities
C1030	Fittings	**F1050**	Special Controls & Instrumentation
C2010	Stair Construction	**F2010**	Building Elements Demolition
C2020	Stair Finishes	**F2020**	Hazardous Components Abatement
C3010	Wall Finishes	**G2010**	Roadways
C3020	Floor Finishes	**G2020**	Parking Lots
C3030	Ceiling Finishes	**G2030**	Pedestrian Paving
D1010	Elevators & Lifts	**D4030**	Fire Protection Specialties
D1020	Escalators & Moving Walks	**D4090**	Other Fire Protection Systems
D1090	Other Conveying Systems	**G2040**	Site Development
D2010	Plumbing Fixtures	**G2050**	Landscaping
D2020	Domestic Water Distribution	**G3010**	Water Supply
D2030	Sanitary Waste	**G3020**	Sanitary Sewer
D2040	Rain Water Drainage	**G3030**	Storm Sewer
D2090	Other Plumbing Systems	**G3040**	Heating Distribution
D3010	Energy Supply	**G3050**	Cooling Distribution
D3020	Heat Generating Systems	**G3060**	Fuel Distribution
D3030	Cooling Generating Systems	**G3090**	Other Site Mechanical Utilities
D3040	Distribution Systems	**G4010**	Electrical Distribution
D3050	Terminal & Package Units	**G4020**	Site Lighting
D3060	Controls & Instrumentation	**G4030**	Site Communications & Security
D3070	Systems Testing & Balancing	**G4090**	Other Site Electrical Utilities
D3090	Other HVAC Systems & Equip.	**G9010**	Service and Pedestrian Tunnels
D4010	Sprinklers	**G9090**	Other Site Systems & Equipment
D4020	Standpipes		

.2 Blasting and Pile Driving Report:
Blasting and Pile driving as it affects adjacent structures. The CMR shall issue a written report detailing its findings.

.3 Site Logistics Plan:

.1 As required by **Table 2.0**, and upon the A/E's **Construction Documents Submittal(s)** the CMR shall prepare and submit a Preliminary Site Logistics Plan for review by the A/E, DCS PM, and Agency Representative(s).

.2 As required by **Table 2.0**, and upon the A/E's **Construction Documents Submittal(s)** the CMR shall prepare and submit a Final Site Logistics Plan for review by the A/E, DCS PM, and Agency Representative(s). The Site Logistics Plan shall identify and include but shall not be limited to the following:

Site Logistics Plan	
1.	Site fence and access gates;
2.	Truck wheel wash area
3.	DCS / A/E field office trailer;
4	CMR field office trailer;
.5	Subcontractors field office trailers;
.6	Subcontractor's storage trailers or storage laydown areas.

.3 As required by **Table 2.0**, and upon the A/E's **Construction Documents Submittal(s)** the CMR shall provide the DCS PM with a site mobilization report describing the cost and schedule implications of all site mobilization work.

.4 Building Excavation Plan:
As required by **Table 2.0,** and upon the A/E's **Construction Documents Submittal(s)** the CMR shall prepare and submit a Building Excavation Plan for review by the A/E, and DCS PM. The Building Excavation Plan shall identify but shall not be limited to the following:

Building Excavation Plan	
1.	Ramp;
2.	Excavation Scope;
3.	Crane Locations;
4.	Shoring;
5.	Site access and traffic ways;
6.	Temporary utility locations;
7.	Off-site utility locations;
8.	Excavation spoils storage area;
9.	Soil erosion control plan;
10.	Dewatering;
11.	Any other item that can impact the project cost and schedule.

3.0 Schedule and Phasing Coordination (General):

The DCS PM and the A/E are responsible for the development of the overall Project Schedule, and for interfacing with the State User Agency on all matters relating to occupancy and/or availability of the facilities for use. The DCS PM and the A/E are responsible for the development and control of all of the Design Phases of the Project. The CMR is responsible for the development and control of the Bid Phase schedule and designated portions of the overall Project Schedule. The DCS PM, A/E and CMR are responsible for establishing the Construction Contract Time.

4.0 CMR Schedule Services During the Design Phase:

As required by **Table 2.0,** the CMR shall coordinate the scheduling all of the Design Phase activities with the DCS PM, A/E, and Construction Administrator. The CMR shall provide the following scheduling services at the designated Preconstruction Phase Milestones.

4.1 Predesign Phase Submittal:

As required by **Table 2.0**, at the end of the **Predesign Phase** and prior to the start of the Schematic Design Phase, the CMR shall submit a **detailed written report** outlining the Project's Construction Schedule for the three conceptual alternative designs. The report shall include a verification of the overall construction duration and conceptual Construction Schedule submitted in a bar chart format for each of the three conceptual alternative designs.

4.2 Schematic Design Phase Submittal:

As required by **Table 2.0**, at the end of the **Schematic Design Phase(s)** and prior to the start of the Design Development Phase, the CMR shall submit a **detailed written report** outlining their recommendations on the Project's Construction Schedule. It shall include a verification of the overall construction duration and conceptual Construction Schedule submitted in a bar chart format.

4.3 Design Development Phase Submittal:

As required by **Table 2.0**, at the end of the **Design Development Phase(s)** and prior to the start of the Construction Documents Phase the CMR shall develop and submit to the DCS PM, A/E and Construction Administrator, a preliminary master Construction Schedule for review and approval. The schedule must be in a precedence diagram network (time logic format) outlining the following:

4.3.1 The proposed CMR's overall Construction Contract time duration and the phasing/sequences;
4.3.2 Shop drawings submittal and review duration as estimated by the CMR;
4.3.3 The proposed early purchase long lead items (if applicable);
4.3.4 All other proposed site support services and special services contract durations and their sequences;
4.3.5 Milestone(s) for State User Agency occupation and partial occupation as required;
4.3.6 The critical path for the project and float amounts available;
4.3.7 Mobilization and demobilization the Subcontractors and any vendors;
4.3.8 The proposed Construction Phase Schedules in all CMR schedules shall be within the Construction Phase Contract Time established in **Section 00 24 19.2 Project Scope, Proposal Submittal Requirements, Evaluation, And Selection Procedures CMR (GMP),** and **Section 00 43 23 CMR Fee Proposal Form**. Any modification to the Construction Contract Time shall be required to be approved by the DCS PM.

4.4 Construction Document Phase Submittal:

4.4.1 As required by **Table 2.0**, at the end of **Construction Documents Phase**(s) and prior to the start of the CMR's Bid Phase Services the CMR shall produce a revised precedence diagram method network (time logic format) including all of the requirements of subsection 4.3 and defining the duration and sequence of each Subcontractor Bid Package, Shop Drawings Submittals and review schedule. Any lead items float amounts, early and sequences shall be defined.

5.0 CMR Schedule Services During Bid Phase:

The CMR shall coordinate the scheduling of all of their Bid Phase activities with the DCS PM, A/E, and Construction Administrator and include but not be limited to the following:

Bid Schedule Items	
1.	Date CMR completes the Final Bid Documents conversion Into Subcontractor Bid Packages;
2.	Subcontractor Bid Schedules(s);
3.	Subcontractor Pre-bid Conference Schedules;
4.	Subcontractor Addendum Submittal Schedule;
5.	Subcontractor Bid Due date(s);
6.	Subcontractor Bid Review / Analysis completion date;
7.	CHRO Contract Compliance Submittal and Approval dates;
8.	GMP Submittal Date.

6.0 Cost Control Management:

All of the following CMR Preconstruction Phase Cost Estimates shall be submitted in accordance with the requirements of this subsection and shall be required to be reconciled with the A/E Cost Estimates. In conjunction with the DCS PM, A/E, and Construction Administrator the CMR shall prepare the required cost estimate and evaluate the cost estimate against the "Cost of the Work" budget. CMR shall recommend, if necessary, the appropriate action to correct and/or avoid potential cost overruns. The basis for the Cost Estimates shall be ASTM Uniformat II, classification system for building elements and related sitework (**www.uniformat.com**). The CMR shall provide the following Cost Control Management services:

6.1 Estimate Of Actual Costs:

Estimates shall reflect the CMR's best professional estimate of actual costs anticipated and:

6.1.1 Establish internal estimating allowances, consistent with good professional practice, appropriate to the phase of development. Larger allowances are assumed held at early phases gradually diminishing to zero at completion of final cost estimate. Do not include a discrete line-item allowance for 'contingency'.

6.1.2 Adjust reported cost estimates to reflect inflation values. Costs shall be estimated to the mid-point of construction. Questions regarding the calculation of inflation values should be reviewed with the DCS PM, A/E, and Construction Administrator.

6.1.3 Written Authorization to Proceed with the next Phase in the design process is contingent upon the acceptance of the Cost of the Work as compared to the DCS Cost of the Work Budget.

6.2 Predesign Phase Submittals:

As required by **Table 2.0,** and upon completion of Predesign Phase the CMR shall provide an estimate of the total "Cost of the Work" of the project for each of a maximum of **three (3)** conceptual design alternatives. The written cost estimates shall be submitted to the DCS PM and shall utilize the cost per gross square foot method for "Major Project Elements" and include, but not be limited to, the following:

Major Project Elements				
A	New Building Construction		**E**	Construction Phasing and Duration
B	Renovate Existing Building		**F**	
C	Site work		**G**	
D	Demolition		**H**	

6.3 Schematic Design Phase Submittal:

As required by **Table 2.0,** and upon completion of **Schematic Design Phase(s)** the CMR shall provide an estimate of the total "Cost of the Work" of the project. : The written cost estimate shall be submitted to the DCS PM and shall utilize the "Major Group Elements" – Level I of ASTM Uniformat II, which shall include, but not be limited to, the following:

Major Group Elements – Level I (ASTM Uniformat II)				
A	Substructure;		**E**	Equipment & Furnishings;
B	Shell;		**F**	Special Construction & Demolition;
C	Interiors;		**G**	Building Sitework.
D	Services;			

6.4 Design Development Phase Submittal:

As required by **Table 2.0,** and upon completion of **Design Development Phase(s)** the CMR shall provide an estimate of the total "Cost of the Work" of the project. The written cost estimate shall be submitted to the DCS PM and shall utilize the "Group Elements" – Level II of ASTM Uniformat II, shall include, but not be limited to, the following:

Group Elements – Level II (ASTM Uniformat II)				
A10	Foundations		**D40**	Fire Protection
A20	Basement Construction		**D50**	Electrical
B10	Superstructure		**E10**	Equipment
B20	Exterior Enclosure		**E20**	Plumbing
B30	Roofing		**F10**	Special Construction
C10	Interior Construction		**F20**	Selective Demolition
C20	Stairs		**G10**	Site Preparation
C30	Interior Finishes		**G20**	Site improvement
D10	Conveying		**G30**	Site Mechanical Utilities
D20	Plumbing		**G40**	Site Electrical Utilities
D30	HVAC		**G90**	Other Site Construction

6.5 Construction Document Phase Submittal:

As required by **Table 2.0,** and upon completion of **Construction Document Phase(s)** the CMR shall provide an estimate of the total "Cost of the Work' of the project. The written cost estimate shall be submitted to the DCS PM and shall utilize the "Individual Elements" – Level III of ASTM Uniformat II, which shall include, but not be limited to, the following:

Individual Elements – Level III (ASTM Uniformat II)			
A1010	Foundations	**D5010**	Electrical Service & Distribution
A1020	Basement Construction	**D5020**	Lighting and Branch Wiring
A1030	Slab on Grade	**D5030**	Communications & Security
A2010	Basement Excavation	**D5090**	Other Electrical Systems
A2020	Basement Walls	**E1010**	Commercial Equipment
B1010	Floor Construction	**E1020**	Institutional Equipment
B1020	Roof Construction	**E1030**	Vehicular Equipment
B2010	Exterior Walls	**E1090**	Other Equipment
B2020	Exterior Windows	**E2010**	Fixed Furnishings
B2030	Exterior Doors	**E2020**	Movable Furnishings
B3010	Roof Covering	**F1010**	Special Structures
B3020	Roof Openings	**F1020**	Integrated Construction
C1010	Partitions	**F1030**	Special Construction Systems
C1020	Interior Doors	**F1040**	Special Facilities
C1030	Fittings	**F1050**	Special Controls & Instrumentation
C2010	Stair Construction	**F2010**	Building Elements Demolition
C2020	Stair Finishes	**F2020**	Hazardous Components Abatement
C3010	Wall Finishes	**G2010**	Roadways
C3020	Floor Finishes	**G2020**	Parking Lots
C3030	Ceiling Finishes	**G2030**	Pedestrian Paving
D1010	Elevators & Lifts	**G2040**	Site Development
D1020	Escalators & Moving Walks	**G2050**	Landscaping
D1090	Other Conveying Systems	**G3010**	Water Supply
D2010	Plumbing Fixtures	**G3020**	Sanitary Sewer
D2020	Domestic Water Distribution	**G3030**	Storm Sewer
D2030	Sanitary Waste	**G3040**	Heating Distribution
D2040	Rain Water Drainage	**G3050**	Cooling Distribution
D2090	Other Plumbing Systems	**G3060**	Fuel Distribution
D3010	Energy Supply	**G3090**	Other Site Mechanical Utilities
D3020	Heat Generating Systems	**G4010**	Electrical Distribution
D3030	Cooling Generating Systems	**G4020**	Site Lighting
D3040	Distribution Systems	**G4030**	Site Communications & Security
D3050	Terminal & Package Units	**G4090**	Other Site Electrical Utilities
D3060	Controls & Instrumentation	**G9010**	Service and Pedestrian Tunnels
D3070	Systems Testing & Balancing	**G9090**	Other Site Systems & Equipment
D3090	Other HVAC Systems & Equipment		
D4010	Sprinklers		
D4020	Standpipes		
D4030	Fire Protection Specialties		
D4090	Other Fire Protection Systems		

7.0 Construction Documents Conversion Into Subcontractor Bid Packages:

In cooperation with the DCS PM and A/E, the CMR shall convert the A/E's "Construction Documents" (see **Note 1**) into logical, competitive, seamless and distinct Subcontractor Bid Packages with all Scopes of Work and Contract Time included in each Bid Package. Subcontractor Procurement Bid Procedures for all "Project Elements" shall also be in accordance with the requirements of **Section 00 52 23 CT DAS CMR Agreement, Subsection 2.1.6 Subcontractors and Suppliers**. Each Bid Package shall include but not be limited to the following State Mandated Bidding Requirements:

> **Note 1:** "Construction Documents" are defined as the Drawings, and Specifications, Signed and sealed by the A/E that set forth in detail the requirements for the construction of the Project and have received a Building Permit from the DCS Office of State Building Inspector or the DCS Codes Unit equivalent.

8.0 Bid Phase Services:

The CMR shall Bid the Project Elements in accordance with the requirements of **Section 2.1.6, Subcontractors And Suppliers** of DCS's Standard Form of Agreement Between Owner and Construction Manager-At-Risk (CMR) For Guaranteed Maximum Price (GMP) and **Subsections 4 and 5,** of **Section 00 24 19.2 Project Scope, Proposal Submittal Requirements, Evaluation, And Selection Procedures CMR (GMP)** of the CMR RFP. The CMR Bid Phase objectives shall include, but not be limited to, the following:

8.1 Develop the logical, competitive, unified and distinct Subcontractor Bid Packages with all scopes of work included in the packages.

8.1.1 The CMR shall utilize the DCS General Conditions – CMR for soliciting Subcontractor Bid Packages, but develop Supplementary General Conditions - CMR (with DCS's participation and subsequent written approval) that address their Subcontractor Agreements, schedule for their Subcontractor Agreements, and the responsibilities of all parties under a CMR with a GMP procurement method, where CMR bids the "Project Elements" and enters into Agreements with the Subcontractors.

8.1.2 The CMR Contingency is set by DCS; this amount shall be included in the CMR GMP. The CMR shall **NOT** require and allow a Subcontractors to include any contingency or allowances in their bids.

8.1.3 The CMR shall develop the Subcontractor Bid Packages and obtain DCS's review and written approval of their proposed Subcontractor Bid documents and Subcontractor Agreements.

8.1.4 The CMR shall include the cost for the advertising, printing and reproduction of all Subcontractors' Bid sets in their CMR Preconstruction Services Fee Proposal.

8.2 CMR Warranting Final Bidding Documents: The CMR shall warrant their Subcontractor Bid Packages against ambiguities, conflicts, or omissions, and guarantee to the State that the total project shall be built for the Cost of the Work budget where the aggregate of all Subcontractor Bids, shall be less than or not greater than the "Cost of the Work" budget and within the Contract Time duration identified in the CMR Request for Proposals. See **Appendix 1, "Sample CMR Letter to CT DAS Warranting Subcontractor Bidding Packages" of Section 00 54 13**.

8.3 CMR Subcontractor Pre Bid Conferences:
The CMR shall coordinate and schedule all Subcontractor Pre-Bid Conferences for the cooperative participation of the A/E and their appropriate Consultants.

8.4 Subcontractor Bid Addenda:
During the Bidding Phase for each and every CMR Subcontractor Bid, the CMR shall cooperate with the A/E in their preparation of all required addenda clarification documents, interpretation of the Construction Documents, and evaluation of equals and substitution. The CMR shall assist the DCS PM as requested, in all procedures required during the bidding phase.

8.5 Subcontractor Bid Scope Review Meetings:

Upon determination of the Lowest Responsible Bidder for each Subcontractor Bid and prior to the CMR's submittal of their Guaranteed Maximum Price (GMP) to the DCS PM, the CMR shall coordinate and schedule the attendance of the A/E at each Subcontractor Bid Review Meeting. The meetings will include verification that all major and important aspects of the design have been included in the low bid. This review will be hosted by the DCS Chief Architect, PM, ADPM for the Project and the CMR.

8.5.1 The State of CT is not allowed to negotiate as part of its CMR Lowest Responsible Bidder contracting process. Therefore, all and any discrepancies discovered during the Subcontractor Bid Scope Review Meetings must be performed within the Subcontractors low bid price as accepted by the State.

8.5.2 If provisions discovered by this Scope Review create a problem for the Subcontractor, that legal entity can withdraw their bid and chose to not sign the contract.

8.6 Conformed Set of Bid Documents (See **Note 2**)**:**

Upon conclusion of the Bidding Phase and prior to the start of construction the CMR shall corporate with the A/E in their production of complete set of "Conformed Set Bid Documents".

> **Note 2: "**Conformed Set of Bid Documents" are defined as the A/E's "Construction Documents" that incorporate all of the "Addendum" changes made to the "Construction Documents" during the official "Bid Period" that are generated as a result of bidder's questions. All changed documents shall be signed, sealed, and dated by the A/E.

8.7 Building Information Model:

When Subsection 2.0 of Section 00 24 19.2 of Volume 1 of 1 of this CMR RFP indicates that the CMR will use a **Building Information Model (BIM)** to prepare the coordination drawings and for clash detection, then **the design will be done as a full BIM design effort.**

8.7.1 The Design BIM Model will be done at the 300 **Level**.

8.7.2 The CMR shall prepare a BIM implementation plan as part of the Preconstruction Services. The BIM implementation plan will receive input from the A/E and the DCS PM. The cost related to preparation of the "BIM implementation plan" shall be included in the CMR's Lump Sum cost for Preconstruction Services.

8.7.3 The BIM implementation plan and the procedures for the clash detection shall be reflected in the trade biding documents.

8.7.4 The CMR shall be responsible for managing the BIM model and the clash detection. At the CMRs' discretion the BIM model manager may be;

- **.1** The CMR's staff or;
- **.2** An outside consultant under contract to the CMR or;
- **.3** A designated trade contractor.

8.7.5 The Construction Phase costs related to managing the BIM Model and coordinating the clash detection shall be included in the CMR's Construction Phase Services Cost Proposal.

End
Section 00 54 13
CMR Preconstruction Phase Supplemental Scope of Services

APPENDIX 1

(Sample CMR Letter to CT DAS Warranting Subcontractor Bidding Packages)

Insert Date

Insert CT DCS PM Name – DCS Project Manager
165 Capitol Avenue
Room Insert Room Number
Hartford, Connecticut 06106

Subject: Insert CT DAS Project Number
Insert Project Number
Insert Project Location

Dear Insert CT DCS PM Name:

In accordance with **Section 00 54 13 CMR Preconstruction Phase Supplemental Scope of Services, Subsection 8.2 - CMR Warranting Final Bidding Documents**, Insert CMR Name hereby warrants their Subcontractor Bidding Packages against ambiguities, conflicts, or omissions, and guarantee to the CT DAS that the Total project shall be built for the "Cost of the Work" budget where the aggregate of all Subcontractor Bids, shall be less than or not greater than the Cost of the Work budget and within the Contract Time duration identified in the CMR Request for Proposals.

Sincerely,
Insert Name,Title and CMR Firm Name

_____
Signature

END
Appendix 1 - Section 00 54 13